REMARKS

The specification has been amended by correcting minor typographical errors and replacing the term " CO2 " with -- CO_2 --.

Claim 2 has been deleted and claims 1 and 3-16 have been amended.

The disclosure was objected to because of the following informalities: throughout the specification the term "CO2" should be -- CO_2 -- or to ---carbon dioxide--.

The disclosure has been amended by correcting the term " CO2" to read -- CO_2 --.

Because of the multiplicity of amendments required to correct the disclosure which includes the sections titled: TECHNICAL FIELD, BACKGROUND OF THE INVENTION, DESCRIPTION OF THE RELEVANT ART, SUMMARY OF THE INVENTION, BRIEF DESCRIPTON OF THE DRAWINGS, and DETAILED DESCRIPTION OF THE INVENTION, the corrected sections are resubmitted in their entirety.

Enclosed please find References: Jones, C. K. 2,303,950 and Ginsburgh et al, 6,293,525B1.

Claim 1-16 were objected to because of the following informalities: in each of the claims the term "CO2" should be deleted and/or changed to --CO_2--.

Claim 2 has been canceled and the term "CO2" has been corrected to read --CO_2-- in claims 1 and 3-16.

Claims 1-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hazbun 4,770,670.

Claim 2 has been canceled and claim 1 and 3-16 are respectfully traversed.

The Hazbun patent (4,770,670) creates an emulsion of diesel fuel and water that is not combustible. In order to retain combustibility, the '670 patent requires that the fuel and water of the emulsion be separated. Additionally, among various selected additives, the '67 patent uses CO_2 to create this emulsion separation. The CO_2 is not maintained within the diesel fuel in this additive process. Instead it reacts chemically with the emulsion water and as a gas is no longer available in the diesel fuel.

The use of CO_2 in the '670 patent is entirely dissimilar to the instant application. In the instant application the CO_2 is used as a part in a non-reactive physical mixture wherein the CO_2 occupies voids between the fuel molecules. Its presence during combustion is to function as an expansion force helping to disperse the adjacent fuel molecules. The CO_2 functions only as a dispersing force ad has no chemical reaction.

Furthermore, the CO_2 as used in the '670 patent chemically reacts with the water and the CO_2 is no longer available to the diesel fuel for any purpose, including all the advantages we cite in the instant application.

In view of the above of the objections and rejections, it is deemed that the Examiners objections and rejections have been overcome. Therefore, the applicant respectfully requests the allowance of claims 1 and 3-16 at an early date.

No additional fee is deemed necessary at this time.

Respectfully submitted,

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fuel delivery systems, and the excess gas will subsequently degas at predictable rates and/or volumes. For example, an aircraft having a shorter duration flight could be fueled with a ~~CO2~~ CO_2-enriched Jet-A fuel having a gas-to-liquid ratio of ~~CO2~~ CO_2 that is absorbed at a substantially higher ratio, that is achieved by employing a higher mixing pressure of the ~~CO2~~ CO_2 in the liquid fuel, to promote faster degassing than with fuel which is mixed at lower, or ambient, pressures (suitable for longer flights).

It is also noted, that in consideration of the environment, the quantity of ~~CO2~~ CO_2 necessary to inert a commercial aircraft, such as a Boeing 747 flight of 6.5 hours and a distance of 3000 nautical miles, is equal to the amount of ~~CO2~~ CO_2 emitted during just a few seconds of engine exhaust from the flight. Furthermore, the present invention includes the mixing of a commercial grade of ~~CO2~~ CO_2 that has been recovered (re-cycled) from high- ~~CO2~~ CO_2-content industrial stacks and vents. Moreover, standardized EPA testing, exhaust pyrometer testing, and engine RPM analysis have each indicated that improved fuel performance may be caused by the ~~CO2~~ CO_2-enriched fuels of the present invention (the improved fuel economy being caused by the ~~CO2~~ CO_2 reducing fuel droplet size, and/or by a cleaning of fuel injection components). For a frame of reference: each one half percent improvement in fuel economy would reduce the 747's 3000 mile flight output of ~~CO2~~ CO_2 by 2200 pounds (this is several times the amount of ~~CO2~~ CO_2 needed to inert the fuel tanks during the entire flight, and thus, would represent a net reduction in ~~CO2~~ CO_2 production).

Thus practicably attained ~~CO2~~ CO_2-enriched liquid hydrocarbon fuels are provided which overcome significant shortcomings of gas-fuel mixtures requiring special processing, handling, and unconventional physical apparatus, and which achieve an enhanced safety fuel, as well as an improved combustion fuel, and do so using inexpensive (and optionally recycled)-~~CO2~~ CO_2.